

In the claims

Please replace originally filed claims with the claims indicated below.

Patent Claims

1. (currently amended) A method for cultivating microorganisms of the order *Thraustochytriales* comprising the steps of:

cultivating the microorganisms selected from the group comprising *Ulkenia* sp. SAM 2179 or *Schizochytrium* sp. SR 21 in a fermentation medium containing CaCO_3 as an essential means for pH value stabilization, where content of CaCO_3 , in said fermentation medium is ~~3 to 15~~ $7.5 \text{ g/l} \pm 0.5 \text{ g/l}$;

~~adjusting the pH value of said fermentation medium being wherein the pH value of the fermentation medium is set prior to the start of the fermentation~~ in the range of 5 to 7 ~~prior to the start of fermentation by adding a corresponding acid or base;~~

isolating PUFAs from said microorganisms and/or said fermentation medium wherein the microorganisms bring forth a production of more than 10 wt% docosahexaenoic acid (DHA) per unit of weight of dry biomass.

2. (previously presented) The method according to claim 1, wherein the microorganisms bring forth a production of more than 25 wt% oil per unit of weight of dry biomass.

3. (cancelled)

4. (previously presented) The method according to claim 1, wherein the microorganisms bring forth a production of more than 1% docosapentaenoic acid (DPA) per dry biomass.

5. (previously presented) The method according to claim 1, wherein 4 g/L to 12 g/L CaCO_3 are added to the medium.

6. (previously presented) The method according to claim 1, characterized in that the medium comprises glucose, corn steep liquor, magnesium chloride, calcium chloride, calcium carbonate, sodium sulfate, ammonium sulfate and potassium hydrogen phosphate.

7. (cancelled)

8. (previously presented) The method according to claim 1, characterized in that the cultivation takes place between 10°C and 40°C.

9. (previously presented) The method according to claim 1, characterized in that the cultivation takes place for 1 to 10 days.

10. (previously presented) The method according to claim 1, characterized in that the microorganism belongs to the genus *Schizochytrium*, *Thraustochytrium* or *Ulkenia*.

11. (canceled)

12. (canceled)

13. (currently amended) A method for cultivating microorganisms of the order *Thraustochytriales* comprising the steps of:

cultivating the microorganisms selected from the group comprising *Ulkenia* sp. SAM 2179 or *Schizochytrium* sp. SR 21 in a culture medium comprising CaCO_3 as the exclusive means for pH value stabilization, where content of CaCO_3 in said culture medium is 3 to 15 7.5 g/l \pm 0.5 g/l;

~~adjusting the pH value of said fermentation medium being wherein the pH value of the fermentation medium is set prior to the start of the fermentation in the range of 5 to 7 prior to the start of fermentation;~~

isolating PUFAs from said microorganisms and/or said fermentation medium wherein the microorganisms bring forth a production of more than 10 wt.

14. (withdrawn) Oil having a content of at least 20 area(%) DHA, produced using a method according to claim 1 and subsequent isolation of the oil from the culture broth and/or the biomass available therein.

15. (withdrawn) Oil having a content of at least 3 area(%) DPA, produced using a method according to claim 1 and subsequent isolation of the oil from the culture broth and/or the biomass available therein.

16. (withdrawn) DHA of at least 90 % purity, produced using a method according to claim 1 and subsequent isolation of the DHA from the culture broth and/or the biomass available therein.

17. (withdrawn) DPA of at least 90 % purity, produced using a method according to claim 1 and subsequent isolation of the DPA from the culture broth and/or the biomass available therein.

18. (withdrawn) Biomass obtainable by means of a method according to claim 1 and subsequent separation of the biomass from the culture broth.

19. (withdrawn) Animal feed comprising biomass according to claim 18.

20. (withdrawn) Foodstuff for human nutrition comprising biomass according to claim 18.